LAND BASED ECOTOURISM
RIVER RAFTING/CANOEING/KAYAKING

Prepared for:

Economic Development Branch
BC Ministry of Sustainable Resource Management

With the Generous Support of:

Skeena Region (MSRM)

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January 2003

BUILDING BLOCKS FOR ECONOMIC DEVELOPMENT & ANALYSIS

PREFACE

PURPOSE

Building Blocks have been conceived and developed by the Economic Development Branch of the Ministry of Sustainable Resource Management, under the guidance of Nancy South, Manager Economic Analysis, as an analytical tool that supports British Columbia coastal and land and resource use planning and decision-making and economic development initiatives. The Blocks contain concise business and sector information for a broad range of resource-based business types in BC. At this point, there are more than 30 Blocks either complete or in draft form. Several more Blocks have been identified as high priority by planning tables and other client groups. Additional Building Blocks will be developed over time, and some Blocks may be updated. For the most current Building Blocks, please see the Ministry of Sustainable Resource Management website, at: http://srmwww.gov.bc.ca/rmd/ecdev/

ACKNOWLEDGEMENTS

Generous support in terms of both funding and staff time has been provided by the Ministries of Energy and Mines; Water, Land and Air Protection; Agriculture, Food and Fish; and Forests, as well as by Skeena and Coast Regions of the Ministry of Sustainable Resource Management.

BENEFITS

Building Blocks are expected to provide the following general benefits:

- Increase efficiency and more informed decision-making by providing readily accessible, credible information to planning and economic development processes;
- Improve the consistency of economic information across planning areas;
- Support economic analysis and decision-making that occurs outside formal coastal and land use planning processes; and
- Provide linkages between economic analysis and other social and environmental analytical tools (through identifying resource requirements to support economic activities and general compatibilities with other sectors and values).

LIMITATIONS

Every effort has been made to ensure that the information contained in Building Blocks is accurate and consistent. Approved, credible data sources are the foundation for Building Blocks. All Blocks were reviewed by sponsoring agencies and other experts. However, users are cautioned that information is used at their own risk, and that the authors and sponsors are not liable for any damages. Any conclusions or interpretations by the authors are not intended to represent government policy. Also, note that Building Blocks do not provide site specific information nor do they consider requirements for sustainability (social, community, environmental).

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RECOMMENDED REFERENCE/CITATION

BC Ministry of Sustainable Resource Management, 2003, Building Blocks for Economic Development and Analysis, *[Title of Sector]*. http://srmwww.gov.bc.ca/rmd/ecdev/

105-05524

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1.0 INTRODUCTION

Nature-based tourism / Ecotourism is defined as travel to relatively undisturbed areas with the specific objective of admiring, studying and enjoying the scenery and its wild plants and animals as well as existing cultural features found in the area.

Ecotourism activities have been sorted into the following categories:

- **Marine Ecotourism**
  - marine cruising including sailing, yacht and power cruising
  - sea kayaking tours

- **Land based Ecotourism**
  - Bicycle Touring/Mountain Biking
  - Hiking/Backpacking/Trekking
  - Horseback Trail Riding
  - Freshwater River Rafting, Canoeing and Kayaking
  - Winter Tourism (Back Country /Tour Skiing, Dog Sledding, Snow Shoeing)

Please refer to the **Marine Ecotourism Overview** and the **Land-based Ecotourism Overview** documents for background information on the Building Blocks, a definition of Ecotourism, the overview of the Ecotourism sector and the bibliography. The Ecotourism Overviews are an integral component of the suit of Ecotourism Building Blocks.

2.0 OVERVIEW

- Includes commercial operators and guides that offer river rafting and freshwater canoeing and kayaking tours in B.C. as their primary business activity (sea kayaking tour operators form the basis of a separate analysis).
- This Building Block focuses on commercial operators that offer multi-day tours.
- River rafting involves customers riding inflated rubber rafts down whitewater sections of rivers. On longer tour packages, the experience includes slower current floats, with the reduced exhilaration of these trips compensated by riverscapes of wilderness and wildlife viewing.[1]

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2.1 Number and Location of Operators

- The B.C. Ministry of Water, Land and Air Protection (WLAP) reports that there are 68 river rafting companies registered to operate B.C., of which 55 are based in B.C., 8 are based in Alaska and in the Western U.S., and 5 are from Alberta and Yukon.[2]
- Of the 55 rafting companies based in B.C.:
  - 31% are based in the South Coast of B.C. (including Vancouver Island, the Fraser Valley and the Whistler area);
  - 38% are based in the Golden/Kootenays region;
  - 9% are in the Mid and North Coast; and
  - 22% are elsewhere in B.C. including the Thompson region, the Cariboo region and the Robson Valley.[3]
- While companies are based in those areas, most offer multi-day rafting tours in other B.C. locations and many also offer river kayaking and canoeing trips.
- Of the 55 river rafting operators based in B.C., between three and five are very large operators that employ between 25 and 70 employees during the summer months, another 5 or 6 are medium-size operators who employ between 10 and 25 people during the peak months, and the balance tend to be small owner-operated businesses that employ up to 10 people during the summer months.[4]
- The majority of client days for river rafting are for day trips, but most river rafting operators also offer multi-day expeditions. A review of 18 B.C. river rafting operators shows that 78% offer some multi-day tours, 22% offer only day tours, and 60% offer river kayaking tours.[5]
- While many of the 55 B.C. based river rafting operators also offer river kayaking and canoeing trips, there are other operators that focus on freshwater kayaking/canoeing tours. These operators tend to focus on a particular region, for example the Bowron Lake canoe circuit or the Turner Lake Chain in Tweedsmuir Park, and some offer lodge accommodations.

2.2 Growth of the Industry

- River rafting has grown significantly in the last 20 years. One of the larger B.C. operators advertises having grown from 4 rafts in 1980 to 40 rafts by 2002.
- A review of 12 B.C. river rafting companies indicated that two thirds have been operating for more than 10 years ago (including two that have operated for more than 20 years), and the other third have been in business for less than 10 years.[6]

3.0 COAST/LAND RESOURCE REQUIREMENTS/SENSITIVITIES

- The most marketed rivers in B.C. include the Thompson, Fraser and Elaho-Squamish rivers.
- There are many other popular rafting rivers in B.C. including the: Clearwater, Kicking Horse, Kootenay, Columbia, Tashenshini, Alsek, Stikine, Babine, Chilko, Chilcotin, Quesnel, Peace, Nechako and Cowichan rivers.

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- Rivers and river sections are classified by degree of navigation difficulty, ranging from 1 and 5, with 1 being the least challenging. Class 1 rivers are very popular with more inexperienced rafters, seniors and families, while Class 5 rivers are popular with only the most adventurous river rafters.
- River kayaking takes place in essentially the same rivers as river rafting. In the Lower Mainland, the Capilano, Coquitlam, Seymour and Chilliwack rivers are also popular with river kayakers.
- B.C. has networks of lakes suitable for multi-day canoeing and kayaking tours, with the most popular being the Bowron Lake Provincial Park canoe circuit. Other popular areas for multi-day canoeing tours include: Moose Lakes near 100 Mile House, the Clearwater-Azure Lakes in Wells Gray Park, Murtle Lake Nature Conservancy and the Turner Lake Chain in Tweedsmuir Park.

4.0 INVESTMENT REQUIREMENTS

4.1 River Rafting

- The Outdoor Recreation Council of B.C. reported that on average, the 46 river rafting operators based in B.C. in 1986 had an average investment of $95,000.[7]
- A minimum investment of $100,000 would likely be required to start up a viable and sustainable river rafting business, although a hobby-type business could be started for as little as $30,000, assuming a minimum of two rafts with a maximum of 16 guests (excluding vehicle for transporting rafts).
- Some of the river rafting operators have significantly greater investment. For example, one of the larger operators advertises operating over 40 rafts.
- An investment of $100,000 might include:

Estimated Investment for Medium-Size Rafting Business

	Approximate Investment
➤ Vehicle (for transporting rafts)	$30,000
➤ Rafts (up to 4 rafts each costing between $5,000 and $15,000)	$40,000
➤ Motors ($2,000 minimum per motor for approximately 5 motors including 1 or 2 spares)	$12,000
➤ Life Jackets (50 at $150.00 each)	$7,500
➤ Wet Suits (70 at $150 each)	$10,500
Total	**$100,000**

Source: Interviews with operators.

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4.2 Freshwater Kayaking/ Canoeing

- A minimum of 12 seats (double and single kayaks) is likely required to start up a viable kayaking business or a canoeing business. This would require a start-up investment of approximately $50,000 to purchase kayaks/canoes and other required materials such as spray skirts, paddles, bailing pumps, life jackets, accessory cords, emergency signalling kits, repair kits, dry bags, rain hats, etc.[8] Also, operations incur marketing and other administration start-up costs such as legal fees, licenses, permits, etc.
- In addition, a vehicle for transporting kayaks and passengers would likely be required, which may increase the investment required by approximately $35,000. Commercial operators often choose to lease their vehicle to help reduce the capital investment required.

5.0 INFRASTRUCTURE AND CAPACITY

- The Bowron Lake Provincial Park is the only major freshwater canoeing/kayaking area that has managed use restrictions.
- Approximately 5,000 people travel the Bowron Lake Provincial Park canoe circuit every summer.[9] The Park managers restrict canoeing/ kayaking use through a reservation system that limits groups to a maximum of 14 people per group and limits the number of people allowed in the circuit at any one time.
- Other lakes and rivers are not utilized to their full capacity although greater levels of use in some areas could impact the wilderness experience currently offered by some of the operators.
- River rafting, kayaking and canoeing operators require access to beaches and camping sites. Operators often consult each other to help coordinate the use of some of the sites.
- In general, capital requirements and markets have limited the growth of the industry, not resource constraints.

6.0 MARKET

Prices for river rafting/ canoeing and kayaking tours in B.C. vary depending on the length of the trip, type of meal offered and accommodations. Prices for river rafting day tours range between $50 for a few hours and $150 per day for a full day. Prices for special expeditions range between $250 per day and $500 per day depending on the location, length of the trip, accommodations and the transportation required to the start-up or ending locations (trips in the higher price range generally require flights in or out of the area).[10]

A 1986 study of B.C. adventure operators reported that approximately half of river rafting, kayaking and canoeing clients were from B.C. The operators contacted as part of this study indicated that B.C. residents accounted for between 70% and 90% of day clients, but only 10% of the expedition market.

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Market Origin for River Rafting, River Kayaking and Canoeing Clients

	1986		Current Estimates – River Rafting	
	Canoeing/Kayaking	River Rafting	Day Tours	Multi-Day Tours
BC Residents	50%	51%	80%	10%
Other Canada	18%	15%	5%	5%
U.S.	22%	25%	10%	70%
Overseas	10%	9%	5%	15%
Total	**100%**	**100%**	**100%**	**100%**

Source: 1986 data: The Outdoor Recreation Council of B.C., *Adventure Travel in British Columbia*, 1988. The 1986 estimates for canoeing and kayaking are an average between the two. Current Estimates: Interviews with operators.

Current market data are not readily available for river kayaking and canoeing, but for sea kayaking tour operators, the U.S. market accounts for between 60% and 75% of total sales, which is comparable to the multi-day river rafting market.

7.0 LABOUR MARKET

- Wages for certified experienced river rafting guides range between $80 and $175 per day. Expedition leaders typically earn more, between $125 and $225 per day.[11]
- There are no regulated guide-to-guest ratio requirements for river rafting but the regulations require a minimum of one guide per raft.
- Experienced kayaking canoeing guides earn approximately $150 per day, plus food (excluding WCB and UIC) and less experienced guides earn approximately $125 per day.[12]
- Operating standards set by the Sea Kayak Guides Alliance of B.C. recommend a ratio of one guide for every three to five participants, depending on the level of difficulty of the tour and the number of single and double kayaks.[13]

8.0 REGULATORY REGIME

8.1 Safety and Licensing

- B.C. river rafting operators are subject to the B.C. *Commercial River Rafting Safety Act*, which licenses guides and outfitters and sets out safety and operating standards. Each Outfitter Permit lists specific rivers (or river sections) where their commercial operations are authorized. There are approximately 145 Special Provisions (rivers or river sections) authorized by the Registrar for Commercial Rafting operations within British Columbia.[14]
- The Province of B.C. intends to repeal the *Commercial River Rafting Safety Act* and terminate the Commercial Rafting Program effective March 31, 2003. Transport Canada plans to introduce new Commercial Rafting regulations in Spring 2003, which will include river rafting safety standards pertaining to the use of lifejackets, helmets,

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wetsuits, guide certification and equipment requirements. At this point, the draft Transport Canada regulations do not include the issuance of Company Permits.[15]

- Commercial river rafting guides must hold a valid guide's license issued under the B.C. *Commercial River Rafting Safety Act*. To be licensed in B.C., river rafting guides must take extensive river rafting and First Aid training, and pass a practical and written B.C. government exam. Licensing costs are $600 for an outfitter and $50 for each trip leader or guide.
- Canoeing and kayaking are not subject to the same stringent regulations as the river rafting industry, but it is usual for guides and outfitters in that industry to also take extensive training. The Canadian Recreational Canoeing and Kayaking Association (CRCA) certifies instructors while the Sea Kayak Guides Alliance of B.C. (SKGABC) certifies guides who are trained to take groups of people on expeditions. The SKGABC also sets operating standards on issues such as group size, guide/client ratios and safety requirements. Most operators adhere to the rules of the SKGABC.[16]
- Various B.C. operators offer training courses in river rafting at a cost ranging between $1,000 and $2,000, which include some practical river guide instruction and theory. Some operators offer additional training in exchange for labour. Training courses in river rafting/ kayaking and canoeing are also available from various community colleges such as the Northwest Community College in Smithers.
- Operators transporting passengers must hold a valid Motor Carrier License.

8.2 Use of Provincial and National Parks

- Tourism operators using Provincial Parks require Park Use Permits (PUP).
- Fees for the Bowron Lake Provincial Park are $50.00 per person for the whole circuit.

8.3 Use of Crown Lands

- In 1998, the B.C. government introduced a commercial recreation management program requiring operators to acquire licenses for extensive use of Crown lands.
- The 1998 regulations require outdoor operators to apply for a Licence of Occupation for each area of Crown land they plan to use for more than 14 days in a six month period. Minimum annual fees for a base camp are $500, plus $100 per site for satellite sites (excluding an application fee of $107 per operator). This grants holders the right to occupy a site over any other commercial users, but recreational users continue to have over-riding priority on any site, licensed or not.[17] In some cases, tenure holders may be allowed to build improvements on specific sites, and they may be granted exclusive rights to those improvements. Most river rafting operators do not hold a License of Occupation.
- The 1998 regulations for the use of crown land sets permitting fees for non-motorized commercial use at $1.00 per client day, with a minimum of $500 per year. The B.C. government is currently working with industry to implement this policy, and most operators are not yet paying these fees.

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- The 1998 regulations specify that the issuing of licenses requires the completion of a long term management plan and a minimum of $1 million in third party liability insurance. Insurance premiums for river rafting may be as high as $5,500 per year for a small operator and up to $25,000 per year for a large operation. Insurance companies view river rafting as a much higher risk activity than canoeing or kayaking with insurance premiums in canoeing/kayaking estimated at approximately $2,500 for a small operator.[18]

9.0 GOVERNMENT REVENUES

- River rafting, kayaking and canoeing tour operators pay permitting fees for operating in national and provincial parks.
- River rafting companies pay $600 per year in license fees under the B.C. *Commercial River Rafting Safety Act*. Each guide also pays $50 per year for an individual license.
- Larger operators may hold a License of Occupation for specific camping sites (set at a percentage of the market value of the land with a minimum rent of $500 per year and an additional $100 per year for each satellite camp).
- The B.C. government is developing policies regarding crown land permitting fees, which require user fees of $1.00 per guest per day for a minimum of $500 per operator.
- Operators and guests are also required to pay for fishing licenses when fishing is included as part of touring expeditions.
- Government revenues are also generated through corporate and personal income taxes.

10.0 INPUT-OUTPUT TABLE – RIVER RAFTING/ KAYAKING AND CANOEING TOUR OPERATORS

The following table shows a range of data for key socio-economic impact variables for river rafting, kayaking and canoeing tour operators in B.C. The table shows information published from a 1986 survey of 46 river rafting operators. The table also shows estimates of the range in socio-economic impacts for operators currently operating in B.C. The data are very approximate.

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Indicators	1986 Average	Current Indicators		
		Smaller Operators - River Rafting	Smaller Operators / Freshwater Kayaking/Canoeing	Larger Operators – River Rafting
Number of Operations	46 river rafting operators	Approximately 45 operators with up to 10 employees during summer months	Many river rafting operators also offer kayaking and canoeing tours	Approx. 10 larger operators who employ between 10 and 70 people in summer months
Land Required	Minimal	Minimal	Minimal, use Park Lands	Minimal
Crown Resources		Campsites – overnight trips with tents	Campsites – overnight trips with tents	Campsites – overnight trips with tents
Product	River Rafting	Day and multi-day tours	Day and multi-day tours	Day and multi-day tours
Investment	Investment of $4.4 million for 46 operators, or approx. $100,000 per operator	Small business may be started with $30,000, excluding vehicle Requires approximately $100,000 in investment for business to provide full time employment to owner-operator	$50,000 for fully equipped kayaks (12 seats) / canoes Vehicle may increase investment by approx. $35,000	May be as high as $1 million One operator advertises fleet of 40 rafts (6 and 12 people per boat depending on size)
Sales	Sales of $4.4 million for 46 operators, or some $100,000 per operator	Approximately $50,000 per year based on 350 client days at average of $140 to $150 per client day	May reach approximately $75,000 (60 clients at $1,250 per person) after 2-3 years in business	The larger companies are multi-million dollar businesses
Employment	3.0 Person Years (PY) of employment per operator $28,260 in wages per operator or $9,286 per PY	Wages account for 20% of total revenues; small business would pay $10,000 in wages Owner-operator works part of the year to plan and market business	Approximately $27,000 in wages based on 2-3 guides in the summer months Owner-operator works part of the year to plan and market business	May hire up to 50 guides in the summer months Guides earn $80 to $175 per day, plus food; leaders earn up to $225 per day

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Indicators	1986 Average	Current Indicators		
		Smaller Operators - River Rafting	Smaller Operators / Freshwater Kayaking/Canoeing	Larger Operators – River Rafting
Purchases of goods and services	Not available	Food accounts for approximately 10% of total revenues, or $5,000 for a small business (i.e. approx. $15 per client day based on 350 client days) Other expenses include gas and vehicle expenses	Approximately $10,000 for food and related supplies ($30 per client day); other major expenses include gas and vehicle expenses	Food costs range between $15 per client day on day trips and $30 per client day on multi-day expeditions Major items may include gas/vehicles for transporting to and from launching sites, base camp, etc.; also, could require air transport to site
Government Revenues		Outfitter license of $600 per year Licenses for individual guides of $50 per guide Proposed permit fees would yield $500 per operator ($1 per client day times 350 clients or minimum of $500 per year) Permit fees for use of parks	Proposed permit fees would yield $500 per operator ($1.00 per client day times 60 clients times average of 5 days/trip or minimum of $500 per year) Permit fees for use of parks	Outfitter license of $600 per year Licenses for individual guides of $50 per guide Proposed permit fees: would yield $1 per client day Permit fees for use of parks

Source: 1986 data: The Outdoor Recreation Council of B.C., *Adventure Travel in British Columbia, Summary*, March 1988. Current indicators: prepared by *Pierce Lefebvre Consulting* based on interviews with operators and other documents. The information for smaller operators offering canoeing and kayaking multi-day tours is based on interviews with sea kayaking tour operators.

The following table shows a preliminary income statement for various types of businesses in the river rafting/ kayaking and canoeing industries. The information is very approximate and is based on discussions with operators and a review of Internet web sites. Actual results would depend on a variety of factors including the types of trips offered, the length of time in business and the location of the operators. Also, many operators offer a variety of adventure tours and some of the costs may be allocated across the different ventures.

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Preliminary Income Statement – River Rafting/ River Kayaking / Canoeing Tour Operators

	Small Operator – River Rafting	Small Operator – Canoeing/ Kayaking Multi-Day Tours	Larger Operator – River Rafting
Revenues	$50,000 (350 client days @$140- $150 per day)	$75,000 60 clients@ $1,250/client	$500,000 (2,000 client days @ $150/day & 500 days @ $400/day)
Wages (incl. WCB, UIC, etc.)	$10,000 (20%)	$27,000 (2 employees for 11 weeks)	$100,000 (20%)
Food and supplies	$5,000 (10%)	$10,000 ($30 per day per client)	$45,000 ($15 per day on day trips, $30 per day on multi-day trips)
Transportation	$10,000 (20%)	$3,000	$100,000 (20%)
Marketing, Promotion and Travel	$5,000 (10%)	$4,000	$20,000
Maintenance/Repairs	$5,000 (10%)	$2,000	$50,000 (10%)
Insurance	$5,000	$2,500 to $3,000	$15,000
Government and Membership Fees	$1,000	$500	$2,500 (assuming $1 per guest per day)
Other costs (e.g. admin., mothership boat, etc.)	$4,000	$3,500	$52,500 (approx. 10%)
Sub-total Variable Costs	$45,000	$50,000	$385,000
Contribution towards Fixed Costs, Debt Interest and Owner	$5,000 (10%)	$25,000 (33%)	$115,000 (23%)

Notes:

1. Transportation includes gas and vehicle expenses. Transportation costs for multi-day trips also include flights for drop-off/pick up to remote locations.

Source: Current indicators: prepared by *Pierce Lefebvre Consulting* based on interviews with operators and Internet web site searches. The information for smaller operators offering canoeing and kayaking multi-day tours is based on interviews with sea kayaking tour operators.

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The main data sources for this building block include:

- Interviews with operators and industry representatives.
- Internet web sites of various operators, industry associations and industry listings.
- Data from the Commercial River Rafting Program, B.C. Ministry of Water, Land and Air Protection.
- The Outdoor Recreation Council of B.C., *Adventure Travel in British Columbia Summary*, 1988.
- Marlyn Chisholm & Associates et al., *Tourism Opportunity Strategy for the Mid Coast Forest District of British Columbia, Final Report*, prepared for the Ministry of Small Business, Tourism and Culture, 2001.

LIST OF ENDNOTES

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[1] Economic Planning Group, *Tourism Product and Sector Capacity and Utilization Analysis*, 1996, page 40.

[2] B.C. Ministry of Water, Land and Air Protection, Commercial River Rafting Program, 2003.

[3] Based on data provided by the B.C. Ministry of Water, Land and Air Protection, Commercial River Rafting Program, 2003.

[4] Interviews with commercial operators, 2002.

[5] Internet searches including www.out-there.com/rft.

[6] Review of Internet web site searches including www.out-there.com/rft.

[7] The Outdoor Recreation Council of B.C., *Adventure Travel in British Columbia Summary*, 1988.

[8] Marlyn Chisholm & Associates et al., page 201.

[9] B.C. Ministry of Water, Land and Air Protection, Bowron Lake Provincial Park, www.gov.bc.ca/bcparks.

[10] Review of Internet sites for various B.C. operators.

[11] Interview with river rafting operators, December 2002.

[12] Interview with sea kayaking operator, November and December 2002.

[13] Clover Point Cartographics Ltd., *Nootka Sound Forest Recreation and Tourism Opportunities Study*, 1998, Section 6.3.

[14] B.C. Ministry of Water, Land and Air Protection.

[15] Communication with Martin Johensen of the B.C. Ministry of Water, Land and Air Protection, December 2002; also, Transport Canada, *Discussion Paper, River Running Standards*, www.tc.gc.ca/MarineSafety.

[16] Based on discussions with sea kayaking tour operators, December 2002.

[17] B.C. Ministry of Water, Land and Air Protection, wlapwww.gov.bc.ca, 2002; also, Land and Water British Columbia, www.lwbc.bc.ca/for business/commercial recreation, 2002.

[18] Interviews with sea kayaking tour operators, November and December 2002.

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